

FIG. 1

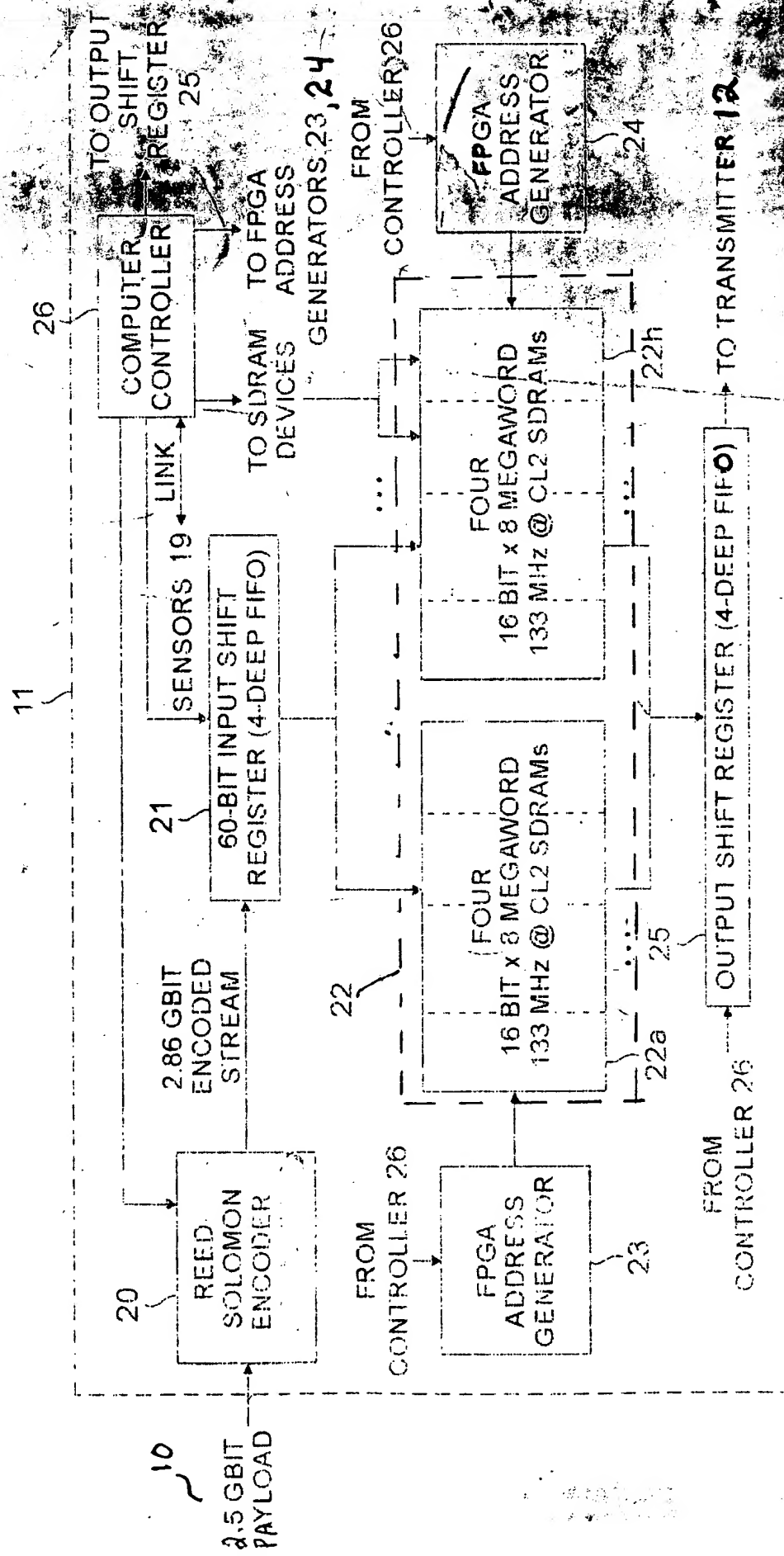
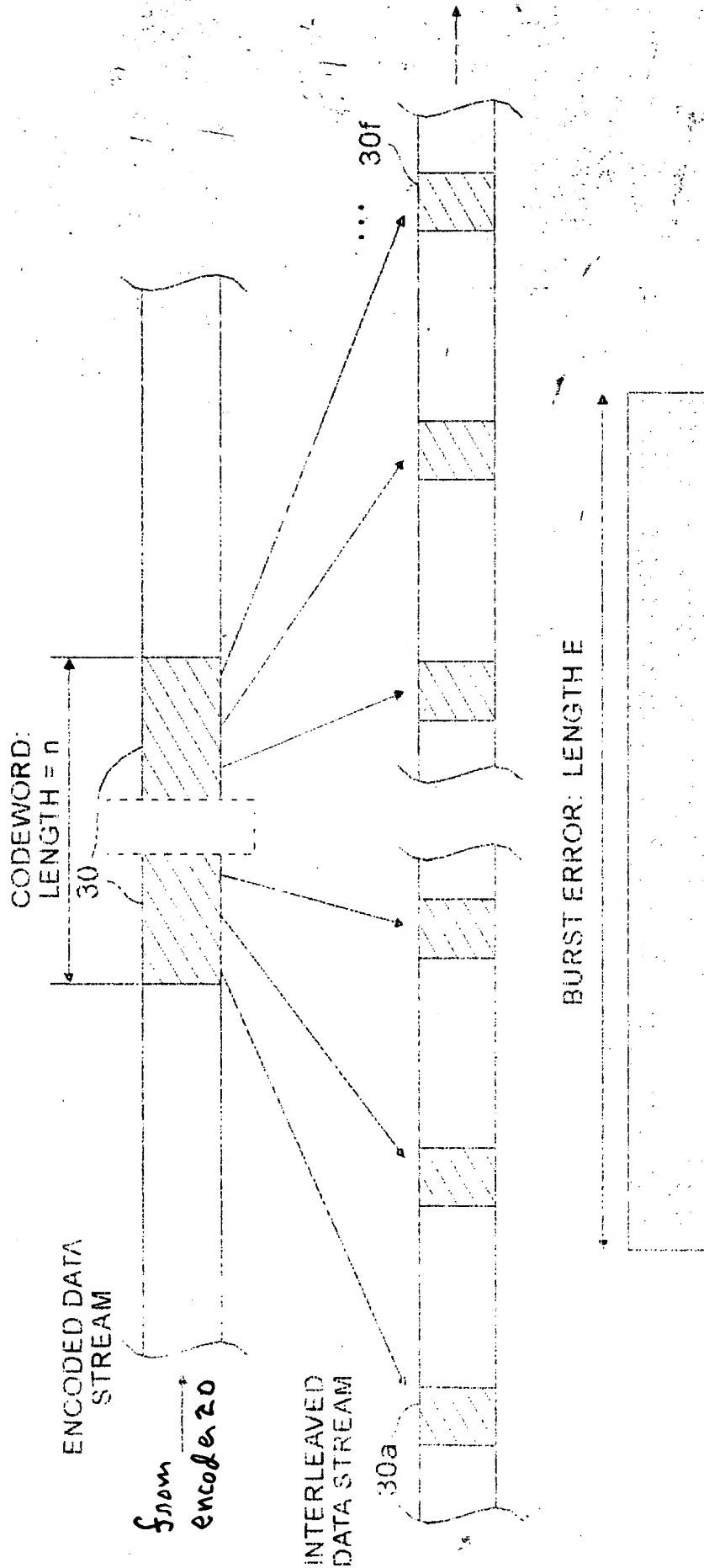


FIG. 2



INTERLEAVING THE ENCODED PAYLOAD

FIG. 3

FROM REED-SOLOMON ENCODER 20

DENOTE THE 60 BIT SEGMENTS OF
THE CODEWORDS BY A 2-TUPLE:

(n, m) : n = CODEWORD NUMBER; m = 60-BIT
SEGMENT WITHIN THE CODEWORD
INDICATED

$n = 1, 2, \dots, 156250$

$m = 1, 2, \dots, 34$ FOR 2040 CODEWORD
LENGTH

INTERLEAVE THE FIRST BLOCK
OF 156,250 CODEWORDS

THEN, AFTER INTERLEAVING THE FIRST BLOCK
OF 156,250 CODEWORDS THE SEQUENCE IS:

$[1.1 \ 2.1 \ 3.1 \ \dots \ 156250.1] [1.2 \ 2.2 \ \dots \ 156250.2] \dots [1.34 \ 2.34 \ \dots \ 156250.34]$

INTERLEAVE THE SECOND
BLOCK OF 156,250 CODEWORDS

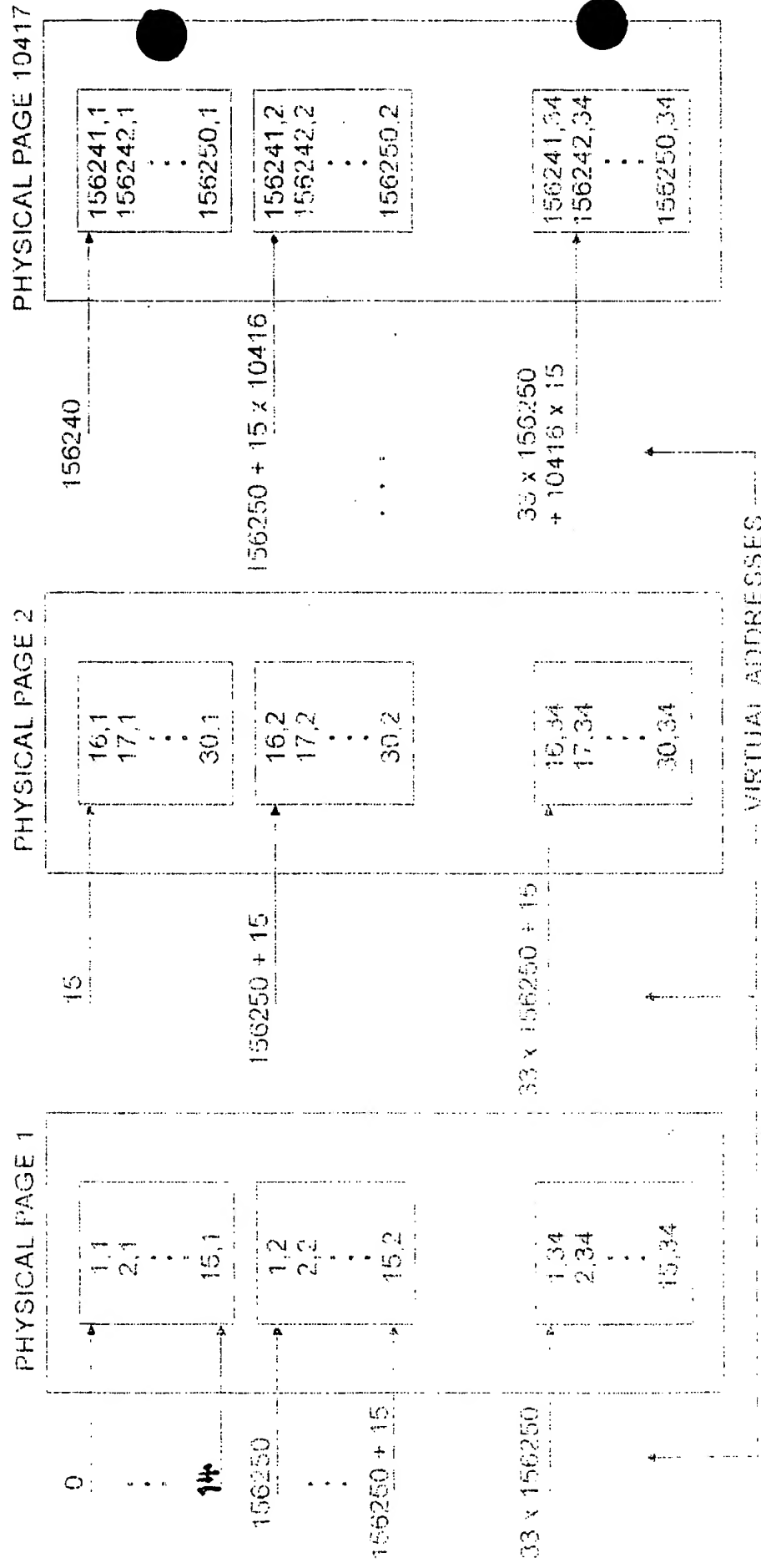
COMPLETE
INTERLEAVING

FIG. 4



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(VIRTUAL PAGES ARE 15 WORDS IN LENGTH)



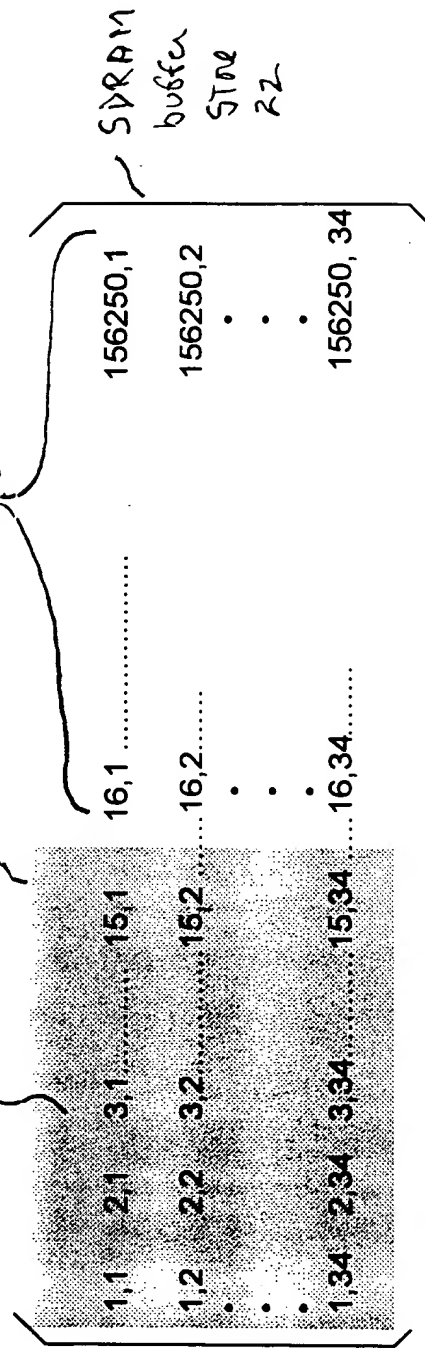
REMAPIING ADDRESSES TO BALANCE
"READ" VS "WRITE" OVERHEAD IN TERMS
OF SDRAM PAGE CHANGES

FIG. 6A

sub-matrix mapping 60-bit entries into first SDRAM page of 512 addresses, using 510 matrix cells to store first codeword during WRITE operation

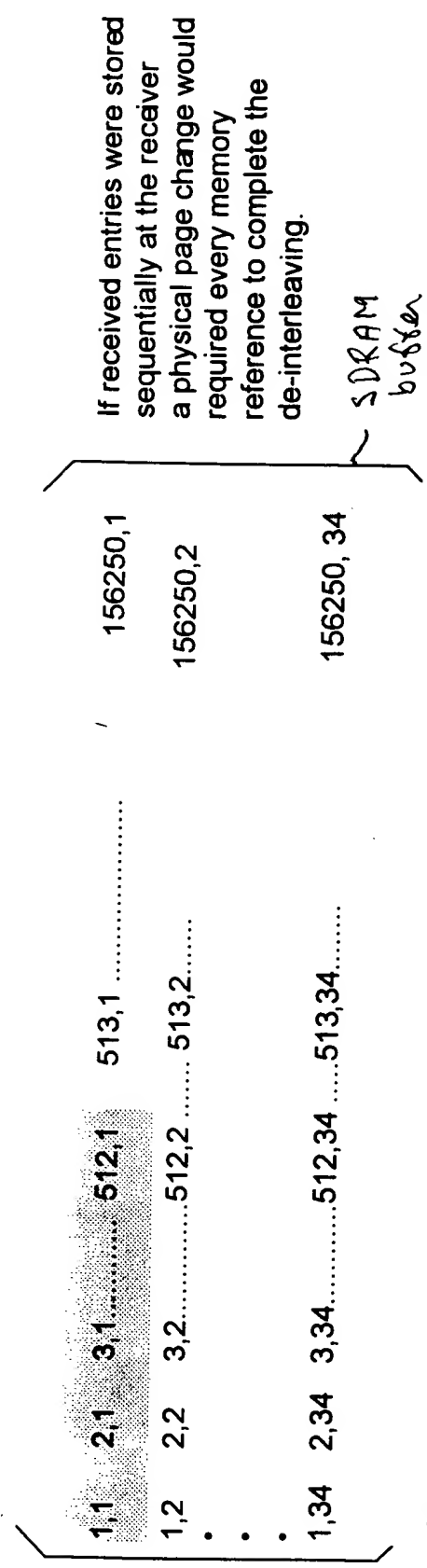
successive additional (approx. 10,416) sub-matrices mapping further 60-bit entries into SDRAM pages to store second through mth codewords during WRITE operation

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Fig. 6B: Codeword Segments Expressed as a Matrix



If received entries were stored sequentially at the receiver a physical page change would be required every memory reference to complete the de-interleaving.

Fig. 6C: Shaded submatrix indicates segment of Received Matrix that Would be Held on One 512 Address page if Receiver Stored Entries Sequentially

Fig. 7A FLOW CHART OF PROCESS AT TRANSMITTER END

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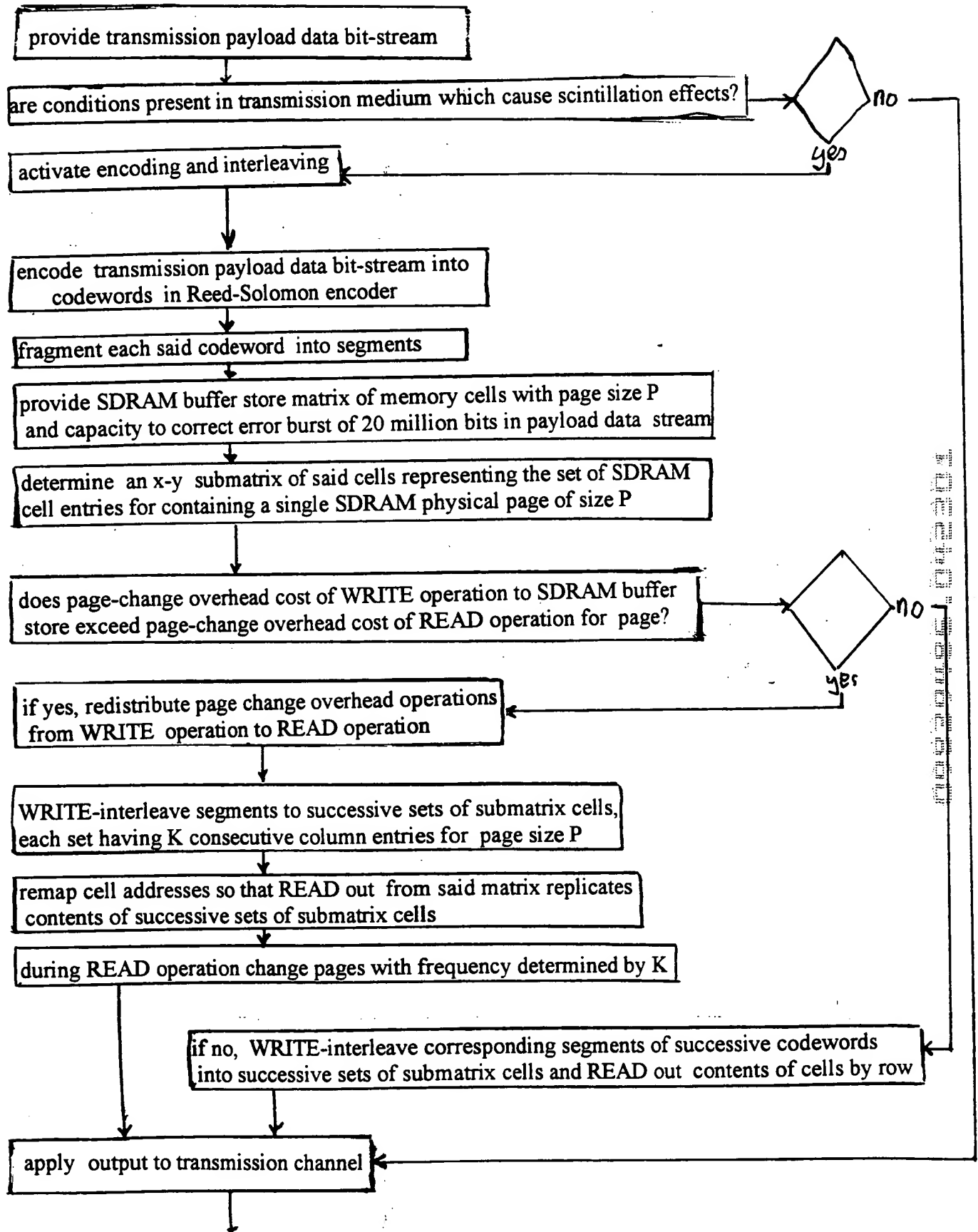


Fig. 7B FLOW CHART OF PROCESS AT RECEIVER END

